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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,890	11/04/2003	James A. DiLellio	BOE 0446 PUS	2889
27256	7590	01/19/2006	EXAMINER	
ARTZ & ARTZ, P.C. 28333 TELEGRAPH RD. SUITE 250 SOUTHFIELD, MI 48034			ISSING, GREGORY C	
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			3662	

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Please find below and/or attached an Office communication concerning this application or proceeding.

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1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-23 and 33-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claims 1-23 and 33-38 are misdescriptive and fail to clearly and distinctly set forth the subject matter. In claim 1, line 2 for example, the system is set forth as including a satellite "generating a plurality of signals having integrity information that is generated offboard said at least one satellite." This statement is contradictory since the added limitation "generated offboard" contradicts the language "satellite generating a plurality of signals."

4. For purposes of this Office Action, the language will be interpreted as meaning at least one satellite relaying/transmitting a plurality of signals having integrity information that is generated offboard the at least one satellite.

5. Claim 24 is indefinite; in line 3, "said at least one satellite" lacks a proper antecedent basis. Furthermore, the claim is directed to the navigation receiver and the added language "which is generated offboard said at least one satellite" fails to add any limitation to the claimed subject matter of the navigation receiver.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

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351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 24-32, 37, and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Clark (6,850,187).

8. Clark discloses a navigation receiver that receives navigation signals from a plurality of navigation satellites that are non-geostationary, wherein the navigation signals include integrity information such that the navigation receiver uses the plurality of signals to determine respective ranges to the satellites, the satellites positions, receiver position as well as the accuracy of the results on the basis of the integrity information provided in the message or alternatively on an L5 channel.

9. Applicant argues that the claimed navigation receiver determines the range and position of the satellite and accuracy thereof in response to the signals and that such are not taught or suggested by Clark. This is contradictory to the teachings of Clark, or any other satellite navigation receiver, since the concept of GNSS is determining the range (pseudorange) to a satellite, recovering the satellite position from the navigation message and determining user position on the basis thereof. Furthermore, Clark clearly discloses the inclusion of integrity information in the message in order to alert the user to loss of integrity or accuracy in the satellite signals. Lastly, this set of claims is directed to the navigation receiver itself and the added language directed to how something, the satellite, is provided with information which it may transmit, integrity data, is non-limitative to the navigation receiver; thus, the added language fails to provide any further limitation to the navigation receiver.

10. Claims 1-38 are rejected under 35 U.S.C. 102(b) as being anticipated by either one of Hein et al ("*Status of Galileo Frequency and Signal Design*") or Benedicto et al ("*GALILEO: Satellite System Design and Technology Developments*").

11. Claims 1-38 are directed to a navigation system similarly referred to as GALILEO as defined by the ESA (European Space Agency). Each of the references disclose the system which includes a plurality of Medium Earth Orbit Satellites which meet the limitation of at least one non-geostationary satellite, wherein the satellites transmit messages in plural frequency bands, including the L5 band, incorporating messages that provide navigation data and safety of life data (integrity and signal in space

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accuracy data). In fact, one of the key assets of GALILEO is its ability to offer the integrity required for the provision of service guarantees and for the support of the safety-of-life applications such that the satellites of GALILEO constellation broadcast the integrity data to users.

12. Claims 1-36 are rejected under 35 U.S.C. 102(a) as being anticipated by either one of Musmeci (*"GALILEO: Overview of the programme and mission"*) or Galilei (*"The Galilei Project: GALILEO Design Consideration"*).

13. Claims 1-38 are directed to the navigation system referred to as GALILEO as defined by the ESA (European Space Agency). Each of the references disclose the system which includes a plurality of Medium Earth Orbit Satellites which meet the limitation of at least one non-geostationary satellite, wherein the satellites transmit messages in plural frequency bands, including the L5 band, incorporating messages that provide navigation data and safety of life data (integrity and signal in space accuracy data). In fact, one of the key assets of GALILEO is its ability to offer the integrity required for the provision of service guarantees and for the support of the safety-of-life applications such that the satellites of GALILEO constellation broadcast the integrity data to users.

14. Applicant argues that the prior art fails to disclose the limitation of generating signals via one or more non-geostationary satellite wherein the signals include integrity information that is generated offboard the satellites and a navigation receiver that determines accuracy and reliability in response to the signals received from the satellites. The applicant's arguments are not convincing in light of the citation of the new references each of which is directed to showing the GALILEO satellite navigation system which includes such features.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

16. Stein et al (*"Global Positioning System Integrity Channel: A System Design Analysis"*) disclose the components of the GPS Integrity Channel including Ground Monitoring Stations (GMSs) that monitor the GPS signals from a plurality of GPS satellites for performing integrity monitoring functions, a Centralized Master Upload Station (MUS) for receiving and processing the integrity monitoring signals from the plurality of GMUs and generating integrity information for upload to a Spaceborne Data Link System (DLS), the Spaceborne Data Link System (DLS) acting as a relay for downlinking the integrity

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data to a plurality of users, and the GIC Avionics for receiving the integrity data for use thereat (see page 577, e.g.). The design issues relating to the spaceborne DLS are acknowledged as including the use of existing satellites, as opposed to developing a new system, and the use of L-band GPS-type signals so as to not require new receiver front end hardware. Stein et al exemplifies the Spaceborne Data Link System as a geo-stationary satellite.

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory C. Issing whose telephone number is (571)-272-6973. The examiner can normally be reached on Monday - Thursday 6:00 AM- 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory C. Issing
Primary Examiner
Art Unit 3662

gci